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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,557	10/11/2005	Peter Westphal	3081.126US01	8968
24113 7590 09/10/2008 PATTERSON, THUENTE, SKAAR & CHRISTENSEN, P.A. 4800 IDS CENTER 80 SOUTH 8TH STREET MINNEAPOLIS, MN 55402-2100				
EXAMINER				
CHAPEL, DEREK S				
ART UNIT		PAPER NUMBER		
2872				
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09/10/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/552,557

**Applicant(s)**

WESTPHAL ET AL.

**Examiner**

DEREK S. CHAPEL

**Art Unit**

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07/01/08 & 10/11/05.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 29-62 is/are pending in the application.
- 4a) Of the above claim(s) 35 and 37-62 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 29-34 and 36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/S508)
- Paper No(s)/Mail Date 10/11/2005
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Status Of Claims***

1. This Office Action is in response to an amendment received 7/1/2008 in which Applicant lists claims 1-28 as being cancelled, claims 35, 37-39, 41 and 43-62 as being withdrawn, claims 29, 33-34 and 36 as being previously presented, claims 30-32 as being currently amended, and claims 40 and 42 as being withdrawn-currently amended. It is interpreted by the examiner that claims 29-62 are pending.

### ***Election/Restrictions***

2. Applicant's election with traverse of Group I in the reply filed on 7/1/2008 is acknowledged. The traversal is on the ground(s) that claim 29 is not included in any of the identified groups and the restriction requirement cites PCT rules. This is not found persuasive because claim 29 was said to be generic to groups I-XIV and therefore is examined if any of groups I-XIV are elected. Further, applications that are the national stage of an international application are governed under PCT rules (see at least 37 C.F.R. 1.499 and 1.475).

The requirement is still deemed proper and is therefore made FINAL.

3. Claims 35 and 37-62 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to nonelected inventions, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 7/1/2008.

***Priority***

4. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Information Disclosure Statement***

5. The information disclosure statement filed 10/11/2005 fails to comply with 37 CFR 1.98(a)(2), **which requires a legible copy of each cited foreign patent document**; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the lined through references therein have not been considered.
6. The information disclosure statement filed 10/11/2005 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. It has been placed in the application file, but the lined through references therein have not been considered.

***Drawings***

7. The subject matter of this application admits of illustration by a drawing to facilitate understanding of the invention (the instant specification refers to at least 9 figures). Applicant is required to furnish drawings under 37 CFR 1.81(c). No new

matter may be introduced in the required drawings. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d).

### ***Specification***

8. The abstract of the disclosure is objected to because "The invention relates to a microscope" should be changed to --A microscope-- on the first line of the abstract, "comprises" should be changed to --includes-- on the first line of the abstract, "According to the invention, the microscope" should be changed to --The microscope-- on the fourth line of the abstract, change all instances of "said" to --the--. Correction is required. See MPEP § 608.01(b).

9. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

### ***Claim Rejections - 35 USC § 112***

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claim 36 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear from the claims or the specification what is meant by "a lens plane". Are the second imaging optics imaging the field aperture plane onto one or more of the lenses in the system or onto a particular "lens plane" (i.e. focal plane of a lens)?

***Claim Rejections - 35 USC § 102***

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13. Claims 29-30 and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Cemic et al., U.S. Patent Application Publication Number 2002/0001090 A1 (hereafter Cemic).

14. As to claim 29, Cemic discloses a microscope arrangement (see at least figures 1, 3 and 4), comprising

an illumination source (see at least figures 1, 3 and 4, element 1) having optical components for generating an illumination beam path (see at least figures 1, 3 and 4, element 3);

a lens through which the illumination beam path is directed (see at least figures 1, 3 and 4, elements 17 or 20) onto a sample (see at least figures 1, 3 and 4, element

18, 22 or 31) located in or in proximity of an object plane of the lens (see at least figures 1, 3 and 4);

optical components for generating an imaging beam path (see at least figure 4, element 20) directed onto a receiving surface of a camera (see at least figure 4, element 34), and

a homogenizing unit to homogenize the intensity of illumination light that is incident on the sample section to be examined (see at least figures 1, 3 and 4, elements 4, 5, 6 and 7).

15. As to claim 30, Cemic discloses that the homogenization unit comprises a light guide including a receiving surface facing the illumination source and an opposing emitting surface (see at least figures 1, 3 and 4, element 4).

16. As to claim 33, Cemic discloses that the receiving surface, the emitting surface or both the receiving surface and the emitting surface of the homogenization unit comprises a microlens structure (see at least figure 2, element 16).

17. Claims 29-32 are rejected under 35 U.S.C. 102(b) as being anticipated by Yoo et al., U.S. Patent Number 5,920,425, of record (hereafter Yoo).

18. As to claim 29, Yoo discloses a microscope arrangement (see at least figure 3), comprising

an illumination source (see at least figure 3, element 311) having optical components for generating an illumination beam path (see at least figure 3, elements 61, 6, 7 and 514);

a lens through which the illumination beam path is directed (see at least figure 3, element 514) onto a sample (see at least figure 7, element 17) located in or in proximity of an object plane of the lens (see at least figures 3 and 7);

optical components for generating an imaging beam path (see at least figure 3, element 51) directed onto a receiving surface of a camera (see at least figure 3, element 32), and

a homogenizing unit to homogenize the intensity of illumination light that is incident on the sample section to be examined (see at least figure 3, elements 313 and 6).

19. As to claim 30, Yoo discloses that the homogenization unit comprises a light guide including a receiving surface facing the illumination source and an opposing emitting surface (see at least figure 3, element 6).

20. As to claim 31, Yoo discloses that the light guide comprises an internally reflective hollow rod (see at least figure 3, element 6), a totally internally reflective, transparent solid rod, a liquid fiber-optic waveguide or a bundle of glass fibers.

21. As to claim 32, Yoo discloses that the optically active cross-section of the light guide is formed to be circular (see at least figures 3, 5 and 6, element 6), square or rectangular.

#### ***Claim Rejections - 35 USC § 103***

22. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:



(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

23. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

24. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

25. Claims 31-32 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cemic et al., U.S. Patent Application Publication Number 2002/0001090 A1 (hereafter Cemic).

26. As to claim 31, Cemic discloses that the light guide comprises an internally reflective hollow rod, a totally internally reflective, transparent solid rod, a liquid fiber-optic waveguide or a bundle of fibers (see at least figures 1, 3 and 4, element 4).

Cemic does not specifically disclose that the bundle of fibers is a bundle of glass fibers.

However, Official Notice is taken that it was well known in the art at the time the invention was made to make optical fibers out of glass.

Further, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the bundle of fibers out of glass, since it has been held to be within the ordinary skill of workers in the art to select a known material on the basis of its suitability for the intended use. One would have been motivated to make the fiber bundle out of glass since glass fiber bundles are readily available in industry. (*Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945)).

27. As to claim 32, Cemic does not specifically disclose that the optically active cross-section of the light guide is formed to be circular, square or rectangular.

However, Official Notice is taken that it was well known in the art at the time the invention was made to make optical fibers having a circular, square or rectangular cross-section.

Further, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the optical fibers have a circular, square or rectangular cross-section, since it has been held that a mere change in shape of an element is generally recognized as being within the level of ordinary skill in the art when the change in shape is not significant to the function of the combination. One would have been motivated to select the light guide to have a circular, square or rectangular cross-

section since circular, square, and rectangular light guides are readily available in industry. *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

28. As to claim 34, Cemic discloses that the microlens structure comprises a plurality of round, square, honeycomb-shaped or cylindrical micro-lenses and are disposed adjacent to each other (see at least figure 2 and paragraphs [0036]-[0040]).

Cemic does not specifically disclose that each microlens has a line radius of approximately 100  $\mu\text{m}$  to 1000  $\mu\text{m}$ .

However, the term "microhoney-comb" indicates that the lenses are in the micrometer range. Official Notice is taken that it was well known in the art at the time the invention was made to make micro lenses having a line radius of approximately 100  $\mu\text{m}$  to 1000  $\mu\text{m}$ .

Further, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the micro lenses have a line radius of approximately 100  $\mu\text{m}$  to 1000  $\mu\text{m}$ , since such a modification would involve only a mere change in size of a component. Scaling up or down an element which merely requires a change in size is generally considered as being within the ordinary skill in the art. One would have been motivated to make the micro lenses have a line radius of approximately 100  $\mu\text{m}$  to 1000  $\mu\text{m}$  in order to achieve the desired focal distance for each microlens and the desired size of the overall homogenizer to meet the design requirements of the system. (*In re Rinehart*, 531 F.2d 1048, 189 USPQ 143 (CCPA 1976))

**Conclusion**

29. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DEREK S. CHAPEL whose telephone number is (571)272-8042. The examiner can normally be reached on M-F 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephone B. Allen can be reached on 571-272-2434. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. S. C./  
Examiner, Art Unit 2872  
9/4/2008

/Stephone B. Allen/  
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